

REMARKS

Claims 1-24 are pending in the application.

Claims 2-4, 8, 9, 11-15, 17-21, 23 and 24 are allowed.

Claims 1, 5-7, 10, 16 and 22 are rejected.

Claims 1, 5-6, 10, 16 and 22 are rejected under 35 U.S.C. 102(e).

Claim 7 is rejected under 35 U.S.C. 103(a).

Claim Rejections – 35 U.S.C. § 102

Claims 1, 5-6, 10, 16 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Patel (US Patent No. 6,396,542). Applicant traverses this rejection.

Before turning to the specifics of claims 1 and 16, some preliminary remarks may be helpful. One difference between the present invention and the Patel reference is that, in the present invention, the presence of an analog TV signal is sensed for the purpose of deciding whether to prefilter the received signal with an analog signal rejection filter, whereas in the Patel reference, the presence of an analog TV signal is sensed for the purpose of deciding whether to display an analog or digital signal on the screen. This difference may be explained in more detail as follows.

In some embodiments, the inventions recited in claims 1 and 16 may essentially presume that a digital television (DTV) signal is present in a channel space, and the DTV signal is the desired signal to view. If an analog signal is present in the same channel space, it is essentially a nuisance that should be eliminated with an analog signal rejection filter (page 2, lines 16-19). However, if no analog signal is present, the filter should not be used because it would degrade the DTV signal unnecessarily (page 3, lines 4-7). Thus, the question is whether or not to prefilter the received DTV signal with an analog signal rejection filter. The inventive principles of the present application utilize a sync signal detector outside of the DTV signal processing path to detect the presence of analog television signal synchronization pulses. If synchronization pulses are present, the analog signal rejection filter shown in Applicant's Fig. 2 is switched in to the DTV signal processing path to prefilter the received DTV signal. Otherwise, the rejection filter is switched out of the DTV signal processing path. Either way, the DTV signal is forwarded to the DTV processing apparatus for viewing.

In contrast, Patel's system appears to assume that, if an analog television signal is present, it is the preferred mode of viewing. Patel discloses a system having two complete signal processing paths: one for analog signals, and one for digital signals. The final signal from either of these paths can be selected for viewing on the display 1331 shown in Fig. 6, and listening on the speakers 74 and 75 shown in Fig. 3. This selection is performed by the multiplexer 128 and audio source selector 72 in response to a signal from Patel's NTSC/HDTV detector circuit 68, which detects whether an analog (NTSC) television signal is present. If an NTSC signal is present, the analog signals are selected for viewing (col. 25, lines 3-9; col. 18, lines 35-39) and listening (col. 18, lines 8-18). If an NTSC signal is not present, the digital signals are selected for viewing and listening.

Although Patel discloses an NTSC rejection filter 30 in the DTV signal processing path, the NTSC/HDTV detector circuit 68 is not involved with switching this filter into or out of the DTV signal processing path. The detector circuit 68 always remains in the path, and its purpose appears to be to reduce co-channel interference if an NTSC signal is present at a level that is strong enough to cause co-channel interference, but not strong enough to be used for viewing. Again, Patel's detector circuit 68 is not involved with switching the analog signal rejection filter into or out of the DTV signal processing path.

Turning now to specifics, claim 1 recites switching circuitry to include the analog television signal rejection filter in the DTV received signal processing path when the sync signal detector detects the presence of analog television signal synchronization pulses within the received signal. That is, the switching circuitry is arranged to switch the rejection filter into and out of the DTV processing path in response to the presence of analog television signal synchronization pulses.

The examiner alleges that multiplexer 128 shown in Fig. 6 of Patel can be interpreted as the switching circuitry of claim 1. However, Patel's multiplexer is not arranged, and does not operate, like the switching circuitry recited in claim 1. Patel's multiplexer 128 selects a signal from one of several different video sources to ultimately be displayed on the screen 1331. (Column 24, line 66 through column 25, line 9.) Although Patel discloses an NTSC rejection filter 30, Patel's multiplexer 128 is not involved with switching the filter into or out of the DTV signal processing path. Patel's NTSC rejection filter 30 remains in the DTV signal processing path regardless of the operation of multiplexer 128. Patel's multiplexer 128 merely switches the

display 1331 between an entire digital (HDTV) signal processing path, or an entire analog (NTSC) signal processing path.

For at least this reason, claim 1 is not anticipated by Patel, nor are claims 5-6 and 10 which depend from claim 1 and recite additional novel features.

Moreover, there are additional differences between the present invention and Patel's disclosure. First, as shown in Applicant's Fig. 2, circuit blocks of the present invention are positioned in front of the digital processing portion. That is, an analog TV signal is rejected and a digital TV signal is filtered through an analog TV rejection filter before the TV signal is supplied to a video decoder. Patel fails to disclose these features. Fig. 1 of Patel only discloses a conventional NTSC rejection filter 30. However, in the present invention, a sync signal detector detects the analog TV signal (specifically, a period of the analog TV signal), and the analog TV rejection filter is selectively used according to the result of the detection.

Second, the field where Patel's scheme is used is different from the present invention. For example, circuit blocks in Fig. 2 of Patel are included in the digital processing portion for processing a digital signal, whereas circuit blocks in Fig. 3 of Patel are included in the analog processing portion for processing the analog signal. Therefore, the NTSC/HDTV detector 68 in Fig. 3 of Patel is different from the detector 250 shown in Applicant's Fig. 2. Detector 68 of Patel only detects whether the supplied signal is an analog signal or not, and controls, e.g., an audio source selector 72 according to the results of the detection to select an audio signal.

Claim 16 is amended to recite filtering the DTV signal through an analog television signal rejection filter prior to decoding the DTV signal in response to the determination that an analog television signal is present. That is, whether or not the DTV signal is filtered through an analog television signal rejection filter is linked to determining that the analog television signal is present.

In rejecting claim 16, the Examiner notes that Patel teaches that NTSC filter 30 may be able to reject co-channel interference to provide HDTV reception. The Examiner also notes that Patel discloses a detector 68 that generates an indication that an NTSC signal is present. However, the Examiner does not identify a causal link between determining that an analog television signal is present and filtering the DTV signal as required by claim 16.

For at least this reason, claim 16 is not anticipated by Patel, nor is claim 22 which depends from claim 16 and recites additional novel features.

Claim Rejections – 35 U.S.C. § 103

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patel (US Patent No. 6,396,542). This rejection is based on the same incorrect interpretation of Patel discussed above, and therefore, a *prima facie* case of obviousness has not been established.

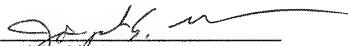
Allowable Subject Matter

Claims 2-4, 8-9, 11-15, 17-21, 23 and 24 are allowed.

For the foregoing reasons, reconsideration and allowance of claims 1-24 of the application as amended is requested. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.



Joseph S. Makuch
Reg. No. 39,286

MARGER JOHNSON & McCOLLOM, P.C.
210 SW Morrison Street, Suite 400
Portland, OR 97204
503-222-3613
Customer No. 20575